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Computer 942

Team project

Binary Search

A binary search or half-interval search algorithm finds the position of a specified value (the input "Item") within a sorted array. In each step, the algorithm compares the input item value with the item value of the middle element of the array. If the item match, then a matching element has been found so its index, or position, is returned. Otherwise, if the sought item is less than the middle element's item, then the algorithm repeats its action on the sub-array to the left of the middle element or, if the input item is greater, on the sub-array to the right. If the remaining array to be searched is reduced to zero, then the item cannot be found in the array and a special "Not found" indication is returned.

Every iteration eliminates half of the remaining possibilities. This makes binary searches very efficient - even for large collections.

Binary search requires a sorted collection. Also, binary searching can only be applied to a collection that allows random access (indexing).

This is the program that get some value of elements from the user and then ask which value the user want's to find where is the position of the number input by user among other numbers

***Input :*** Number of elements:

           Element's value:

           Value to be searched:

***Output:*** Position of the number input by user among other numbers